AMENDMENTS TO THE SPECIFICATION

Please amend the title of the invention on page 1 as follows:

OPTICAL HEAD HAVING A POSITION DETECTION PORTION AND OPTICAL DISK DEVICE UTILIZING THE OPTICAL HEAD

Please amend paragraph [0009] on page 4 as follows:

[0009] That is to say, the aberration correction lens 41 is moved in the X axis direction; however, because the aberration correction lens 41 is supported on the leaf springs 45, not only does it oscillate ~~oscillates~~ in the X axis direction, but it also rotates about the Y axis to no small extent. Hence, when the system is subjected to a disturbance and starts to oscillate about the Y axis, it is no longer observable or controllable. The same applies to the displacement about the Z axis and the displacement in the Y axis direction, that is, in the buckling direction of the leaf springs.

Please amend paragraph [0021] on page 10 as follows:

[0021] The aberration correction lens 4 is supported on an aberration correction base 11. To be more concrete, the aberration correction base ~~lens~~ 11 includes a bottom portion 11a, a pair of first supporting portions 11b provided to stand on the bottom portion 11a, and a pair of second supporting portions 11c provided to stand on the bottom portion 11a. The bottom portion 11a is made into a flat plate in the shape of a capital T when viewed in a plane. The both first supporting portions 11b are disposed at one end (for example, the left end in Fig. 1) in a direction orthogonal to the optical axis of the laser beam 3a, and the both second supporting portions 11c

are disposed at the other end (for example, the right end in Fig. 1) in the direction orthogonal to the optical axis.

Please amend paragraph [0024] on page 11 as follows:

[0024] Each first supporting portion 11b is provided with a ~~an~~ through hole for a drive shaft 7. These through holes are provided at positions to be parallel to the optical axis of the laser beam 3a. The drive shaft 7 inserted through these through holes is therefore disposed parallel to the optical axis.

Please amend paragraph [0035] on page 15 as follows:

[0035] The optical head is provided with a position detection portion 20 that detects the position of the aberration correction lens 4 in the optical axis direction. The position detection portion 20 includes a magnet 12 as an example of a magnetic field generation portion and a hall element 13 as an example of a magnetic field detection portion. The magnet 12 is disposed on ~~provided to~~ the lens holder 10. Meanwhile, the hall element 13 is disposed on ~~provided to~~ the bottom portion 11a of the aberration correction base 11 to face the magnet 12. As is shown in Fig. 2, the hall element 13 is disposed so as ~~provided~~ to slightly protrude from the top surface (inner surface) of the bottom portion 11a.

Please amend paragraph [0038] on page 16 as follows:

[0038] Because the lens holder 10, the aberration correction lens 4 fixed to the lens holder 10,

the frictional holding body 8, and the magnet 12 are all allowed to slide along the drive shaft 7 in a direction parallel to the optical axis, the lens holder 10, the aberration correction lens 4, the frictional holding body 8, and the magnet 12 are collectively defined as the movable portion 100 herein. In the optical axis direction, a direction to move approximate to the optical disk 1 is referred to as the direction A, and a direction to move away from the disk 1 is referred to as the direction B.

Please amend paragraph [0054] on page 22 as follows:

[0054] Let P0 and P1 be the most appropriate positions of the aberration correction lens 4 with respect to recording layers L0 and L1, respectively, in a double-layer ~~doubly layer~~ disk. Let S0 and S1 be position signals specifying the positions of the aberration correction lens with respect to the positions P0 and P1, respectively, of the aberration correction lens 4. The position signal can be obtained from an output signal of the hall element 13. Herein, assume that the values S0 and S1 of the position signal have been stored.

Please amend paragraph [0081] on page 31 as follows:

[0081] The characteristics of the hall element 13 and the magnet 12 described in the first embodiment vary with ~~temperatures~~ temperature. For example, as is shown in Fig. 10, even when the aberration correction lens 4 is set at the same position, the position signal generated on the basis of an output from the hall element 13 decreases almost linearly as the temperature increases. However, because the temperature coefficient is almost constant, it is possible to

perform accurate control by taking this property into account.

Please amend paragraph [0098] on page 36 as follows:

[0098] When a hall element is subjected to influences of an external magnetic field, generally, its characteristic changes with temperature ~~temperatures~~ or the like. The influences of an external magnetic field or the like to which is subjected the hall element 17 that is irrespective of the position signal are equivalent to the influences of an external magnetic field or the like to which is subjected the hall element 13 that outputs the position signal. Hence, by providing the hall element 17, it is possible to detect these influences alone at the hall element 17. Also, by performing a computation to correct the position signal from the hall element 13 using the reference signal 29 from the hall element 17 in the control portion 30, it is possible to reduce the influences of an external magnetic field, the temperature characteristic, etc. In addition, by providing the hall element 17, it is possible to reduce the influences even in a transitional state in which the temperature changes abruptly like at the moment immediately after the power supply is switched ON.